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Memento Mori: Technology Design for the End of Life
CHI 2012

Cover Sheet

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Memento Mori: Technology Design for the End of Life

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Topic, Rationale, and Timing

Digital technologies have the potential to affect dying and grieving significantly [5]. The role of interactive technologies at End of Life (EoL) is a recently established and quickly growing topic in the CHI community. It is becoming increasingly urgent to create a deep understanding of how to design technologies that address EoL needs – a process termed thanatosensitive design. We propose a workshop that brings together researchers, designers, and entrepreneurs from a variety of disciplines and perspectives around this common theme. The goal of the workshop will be to address the design space, share lessons learned from methodologies and processes that have been applied, and promote cross-disciplinary knowledge-sharing. Such issues cut across the entire span of work in human-computer interaction, and have a potential impact on all who create digital footprints.

This workshop builds on the success of our previous workshop at CHI 2010 [4]. Since then, work has appeared in a variety of ACM venues, testifying to growing interest in this topic. As early organizers in this space, we have noticed a shift in the literature from fieldwork to design. In light of this shift, CHI 2012 presents a timely opportunity to reconvene, and to strengthen the thanatosensitive design community. Holding the workshop at CHI increases the visibility of

the HCI community as a key contributor to both academic and professional discussions on this topic.

Plan

We will take a 'sandpit' approach [3] to the workshop, creating a dynamic event where innovative ideas can be generated and new interactions fostered. We will achieve this through careful selection of participants from across disciplines and a lively mixture of workshop activities. We further seek to bridge the divide between research and industry, and have secured early commitments from industry innovators who will attend the workshop as invited participants (including The Digital Beyond, Entrustet, and LegacyLocker).

Pre-workshop:
We will publicize our call for submissions across relevant disciplines in academia and industry by creating a website with the workshop details (http://sites.google.com/site/chi2012eol/), and utilizing email, special interest groups and Twitter. We will leverage our professional networks, e.g. in social media, design, thanatology, forensic anthropology and psychology, to ensure that the workshop is truly inter-disciplinary. Each participant will be required to submit a 2-4 page position paper. Papers will be accepted based on originality and quality, and will represent a spectrum of viewpoints. We will select up to 20 participants.

The workshop: Morning
Participants will each present their work in 5 minutes or less, with time for 1-2 questions following each presentation. Participants will describe key aspects of their work, disciplinary background/methodological approach, and what aspects of the design space, methodologies and processes they would like to address in the workshop. Presentations from invited industrial participants will be highlighted in order to present grounded case studies for discussion.

A facilitator will create a visual representation of the information provided by the participants, using mind-mapping techniques [2]. As a large group we will review the emerging discussion topics, using the mindmap as an 'aide-memoire'. We will then break into smaller groups to refine the emerging concepts, relationships, and themes within these topics. Finally we will regroup to finalize a list of three topics for discussion in the afternoon.

The workshop: Afternoon
After a shared lunch, we will split into three break-out sessions, where we will use creative and innovative thinking techniques to focus on the topics identified. Captured outputs for each session will focus on research/design challenges and directions, and opportunities for continued communication and community-building. Organizers will be distributed among the groups to facilitate discussion.

We will reconvene as a large group to discuss the results of the break-out sessions, and conclude with a plenary discussion of the major results of the day. A plan will be put in place for disseminating workshop results, through (a) traditional means such as books, journals, conferences, and (b) emerging venues that will increase visibility of the HCI community in this space (e.g., at Digital Death Day, SXSW).

The workshop: Evening
We will arrange an informal dinner at a local restaurant, creating the opportunity to build up the research community further.

Workshop organizers

Michael Massimi is a Ph.D. candidate in the Department of Computer Science at the University of Toronto, working in the area of human-computer interaction. His research focuses on understanding technology's role at the end of life, and the design and development of technologies for supporting the bereaved.

Wendy Moncur is an EPSRC Research Fellow and Lecturer in the School of Computing (University of Dundee) and a Visiting Fellow at the Centre for Death and Society (University of Bath). Wendy specializes in the design of socio-technical systems for the milestones in people's lives, such as birth and death. Her current research revolves around the question of what happens to personal data held online when a user dies.

William Odom is a Ph.D. student at Carnegie Mellon University's Human Computer Interaction Institute. He is interested in the potential possibilities and consequences of designing more enduring forms of technology in the context of everyday life. He has organized workshops at the CHI and EPIC conferences.

Richard Banks is a principle interaction designer for Microsoft Research in Cambridge, UK. He's part of the Socio-Digital Systems team, which spends most of its time looking at family life, trying to understand the complexities of home, in order to figure out how the digital should fit in appropriately. Richard joined Microsoft in 2005 after graduating from the Royal College of Art in London. Since then he's worked as a design manager in Seattle on Microsoft's Office, Windows, and MSN products before moving home and into Microsoft Research. Richard holds in excess of twenty patents for design work at Microsoft, is a Fellow of the Royal Society of Arts in the UK, and recently published "The Future of Looking Back" [1], a book examining issues of digital legacy.

Dave Kirk is a Senior Lecturer in Experience-Centred Design based in the Culture Lab at the School of Computing Science, Newcastle University, UK. A psychologist by background his work has encompassed a variety of HCI areas relating to archiving, memorabilia and memorialization. Most recently his work has been exploring intersections of the global digital economy and memorialization practices in Rwanda and Slovenia.

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Memento Mori: Technology Design for the End of Life

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Abstract
The role of interactive technologies at End of Life (EoL) is a recently established and quickly growing topic in the CHI community. In this workshop, we focus on the design space, methodologies and processes associated with EoL, moving forward the research agenda initiated in the successful CHI 2010 workshop "HCI at the End of Life" [8]. In particular, we focus on moving from fieldwork to *thanatosensitive design* – a process which engages with EoL issues as part of the design concept. We invite participation from a wide range of people interested in technology and EoL, from the HCI community, academic and professional communities with a variety of perspectives/disciplines, and entrepreneurs developing applications in this space.

Keywords
Death, dying, mortality, end of life, research methodology, thanatosensitive design, reflective practice.

ACM Classification Keywords
H5.m. Information interfaces and presentation (e.g., HCI): Miscellaneous.

General Terms
Design, human factors.

Motivation

The HCI community has recently identified death, dying, and bereavement as topics that are touched by modern computing. Early investigations have been carried out into how technology use, design, and evaluation apply to this sensitive domain. The process of *thanatosensitive design* [6] – the creation of interactive artifacts that deal with death in their design concept – is becoming more fully developed as ongoing explorations begin to reveal actionable design insights. Indeed, HCI researchers and practitioners have begun to translate these insights into interactive artifacts [4], organizational policies [3], and other End of Life (EoL) services [9,10].

This CHI 2012 workshop builds on a successful CHI 2010 workshop on "HCI at the End of Life" [8] and other early venues which have addressed this topic over the past two years. These include "Digital Death Day" – an annual workshop held in San Francisco and London [2], panels held at design and industry events like SXSW- e.g. [13], and the cross-disciplinary conference "Death & Dying in the Digital Age" [12].

Interest within the CHI community is also growing. Recent work has summarized many of the thematic concerns raised at these events. In the past two years at CHI, there have been numerous archival papers presented that directly address this domain, and a growing number of submissions presented at diverse ACM conferences including Designing Interactive Systems (DIS) and Computer Supported Cooperative Work (CSCW) that substantially address death. In short, this topic is generating growing interest among practitioners and researchers from academic and commercial backgrounds, across disciplines. Now that there is an emergent community and an initial mapping of topics around the end of life [7,11], this workshop seeks to move the agenda forward by focusing on the scope, methodologies and processes of thanatosensitive design. It is hoped that such a workshop would further galvanize and coalesce this burgeoning community of researchers.

Reflecting the proactive role played by industry, we have recruited industry practitioners from leading-edge companies in this domain to participate in the workshop, to help catalyze this emerging area. These companies are The Digital Beyond (www.thedigitalbeyond.com), one of the foremost blogs and news sites covering technology and EoL, and Entrustet (www.entrustet.com) and Legacy Locker (www.legacylocker.com), two of the world's first websites for digital asset management and inheritance.

Topics and Issues

Designing for EoL and beyond presents a variety of challenges [1,9]. While all stages of work will be considered, the workshop itself will be an opportunity for participants to share ideas and best practices on design-oriented topics grouped into three themes:

Design space. We invite discussion of the perceived boundaries of the thanatosensitive design space before and after death, and how we can design for multiple-lifespan use. Topics in this theme include context (when should thanatosensitive design considerations be applied?), technical considerations (will this hard drive last forever?), social considerations (who will maintain or curate this system?), interoperability (how do we allow data to be stored and used by multiple services for various purposes?) and scalability (how will the

systems that we build and use address the growing digital footprints increasingly left behind when users die?).

Design methodologies. Discussions of how to conduct thanatosensitive research, including (but not limited to): epistemological approaches, empirical methods, conceptual or theoretical frameworks, analysis procedures, and standards and metrics for evaluation of systems. We also invite discussions on how to conduct ethical and respectful research, and how to manage the impact on the practitioner of conducting research in this challenging context (e.g., "burnout" and self-care).

Design process. Insights and lessons drawn from creating systems which deal with death in their design concept. We invite reflections on the design process, and on working with(in) organizations. This includes constraints and tradeoffs (how do I build something impactful with limited time and money?), organizational/participant values (how does working with a particular group of people result in design choices?), and the influences of cross-disciplinarity. This also includes questions of how to conduct research studies around designed artifacts (e.g., technology probes), and how HCI researchers can contribute to the broader academic community concerned with death. We invite contributions not only from HCI practitioners, but also from thanatologists, psychologists, sociologists, and those working in EoL and bereavement care, to share insights and join us in building a research community in this fascinating and emergent area.

Workshop Goals

The main goals for the workshop are to:

1. Provide a 'sandpit' environment [5], where a multidisciplinary mix of participants can generate a shared understanding of the research challenges in the thanatosensitive design space.
2. Continue to develop a cross-disciplinary design community which fosters lateral thinking and uncovers innovative research directions, where HCI research and design projects dealing with EoL can be identified and organized.
3. Develop a plan for disseminating workshop results, through (a) traditional means such as books, journals, conferences, and (b) emerging venues that will increase visibility of the HCI community in this space (e.g., at Digital Death Day, SXSW).
4. Promote discussion with leaders in the commercial space. Founders from three prominent companies will attend as invited participants.

Conclusion

The role of interactive technologies at EoL is a recently established and quickly growing topic for researchers, designers, and practitioners. We are at an exciting point in time, where members of the HCI community are beginning to move from exploratory fieldwork to engaging in thanatosensitive design projects. Holding this workshop in conjunction with CHI 2012 provides an opportunity to bring together a diverse group who are engaging with EoL topics from a variety of perspectives. Participation will help to build working relationships between the HCI community and the broader academic and professional communities concerned with EoL.

Acknowledgements

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Memento Mori: Technology Design for the End of Life
CHI 2012

Massimi, Woncur, Odom, Banks, and Kirk

Call for Participation

Interactive technologies increasingly play a role throughout our lives – and the end of life is no exception. Building on a successful workshop at CHI 2010, we invite participation in the CHI 2012 workshop "Memento Mori: Technology Design for the End of Life." This one-day workshop will address technology use associated with the end of the human lifespan, in the processes of death, dying and bereavement. Example topics include (but are not limited to): health systems for the dying, interactive memorials, bereavement support systems, digital inheritance, and death-oriented perspectives on social media.

We invite 2-4 page submissions in ACM Extended Abstracts format that critically analyze the author's experience of designing, using, or evaluating technologies that engage with the End of Life. We encourage submissions from diverse backgrounds, including (but not limited to): medicine, sociology, law, social work, the arts, humanities, death studies, and thanatology. Industry and community organizations are similarly encouraged, and will be joined by founders of prominent organizations including The Digital Beyond, Entrustet, and Legacy Locker. Submissions will be selected based on originality, quality, and potential to generate discussion. Both completed and in-progress work is welcome.

Submissions and questions should be directed to Michael Massimi (mikem@dgp.toronto.edu). More information can be found at http://sites.google.com/site/chi2012eol/. At least one author of each accepted paper must register for the workshop and at least one day of the ACM CHI 2012 conference.

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